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THE GLEANER

NATIONAL AGRICULTURAL COLLEGE

What is Our "Road to Survival?" -- Page 7

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Letters to the Editor

Dear Mr. Rosenoff:

I have received your complimentary copy of the GLEANER for the month of November. I appreciate very much your sending me this publication, because I do get quite a few questions from time to time, relative to the activities of the college, and I enjoy knowing what is going on.

Thank you very much for including me on your mailing list.

Wm. F. Greenawalt
County Agent
Doylestown, Pa

★ ★ ★ ★

A. Greenblatt and Staff:

I perused your November issue of the GLEANER and it brought back memories. I have worked as "scribe" for the GLEANER in 1930-31. The photo on the cover page made me think back 20 years when I arrived as a freshman and how with a feeling mixed with wonder and butterflies in the "tummy" I walked from the R.R. station up the hill to Lasker Hall.

Of course there was a slow period of adjustment but before I knew it, three years had flown. They were happy years.

Now I wish you GOOD LUCK AND SUCCESS on a real "LIVE" publication. My best wishes to you and your staff.

P.S. You already know of the fine meeting the N. Y. Alumni held recently. What a great turnout! It was refreshing to see old and new faces.

Sidney Goldberg, '31

(It's good to receive letters such as these—we welcome more.—Editors)—

FOOTBALL BANQUET

The Annual N.A.C. Football Banquet will be held in Lasker Hall on Friday, January 21st, at 7:00 P.M.

There will be a special program of entertainment and a number of famous football celebrities will be on hand.

President James Work will be the Toastmaster.

The GLEANER

NATIONAL AGRICULTURAL COLLEGE
Farm School, Bucks County, Pennsylvania

VOL. LIII **JANUARY, 1949** NO. 3

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The Gleaner is published throughout the school year by the student body of the National Agricultural College. Entered as second class matter at the Post Office at Farm School, Pa. Subscription rate—$1.50 per year.

EDITORIALS

Let's Not Forget

Now that it's the beginning of a New Year probably many of us have made numerous resolutions that we'll soon break. But this is one resolution that we should make and shouldn't break!— ———The unfinished business of helping Jimmy Peters.

We raised almost $500 to help him financially and then we stopped. What's to be done now? Let's not rest on the fact that we raised all that money ourselves.

Sure, we ran a dance and solicited donations, but our fund raising stopped there. Why not continue? Let's go on helping the Peters.

Let's be the first group in the college (the classes of '50, '51, and '52) to start something of far reaching effect to the students. Graduates at other schools dedicate plaques, statues, trees, or paintings, AFTER they have left or are ready to leave.

We propose that a JAMES PETERS FUND be established which shall always be present at this school to help other students who may come upon unforeseen difficulties. The government will not always finance a college education. There may come a time when a student may have to leave college in his last year because of financial difficulties. Other conditions may arise which may require a loan for a short period of time.

Let this be a student fund through and through, with little backing from the administration, alumni, or outsiders.

Let's expand such a fund. What are your ideas?

When each class leaves the college it will present N. A. C. with a gift. Let's give the money now. This would start the fund with approximately $300-400.

Another aid for the fund would be a donation by each club. Individual ideas may also help. Let's run the dances to earn a profit, extra money to be put into the fund. How about an alumni-varsity or freshman basketball game with all proceeds to go into this fund?

We're willing to do something, are YOU? *Let's start that fund off today.*

ON THE COVER

With finals just around the corner, Sol Resnick '50 has begun to "hit the books" — at that moment his mind was elsewhere.

WHO'S WHO ON THE FACULTY

WALTER J. GROMAN, SUPERINTENDENT OF FARMS

Most likely you see him once a day, and yet you don't know who he is. He rides around from field to field in a Chevrolet coupe; corn picking here, plowing there, planting wheat some place else, work to be done everywhere. And in case you've never had the opportunity of meeting him, he is Mr. Walter J. Groman, class of 1920, and at present, manager of the various college farms.

Mr. Groman was born near Allentown, Pennsylvania, and entered the National Farm School in 1917. When Mr. Groman enrolled, students could not major in the fields they were interested in, because, at that time, everyone was required to take identical subjects, and it was only in 1930 that the different educational departments were established: dairy, poultry, horticulture, etc.

At that time, and up to 1927, it was a policy of the school to pick two boys from each graduating class for a post graduate course. This course constituted a managerial position and consisted of supervising one of the school farms. Mr. Groman was given farm #4. He remained here and became farm foreman and herdsman. In 1924, when the school instituted a course "Farm Equipment and Gas Engines," Mr. Groman became the instructor. He continued in this capacity as well as supervisor until 1938, when he left and assumed a position with the Doylestown Agricultural Company as parts and service manager. Here he had the opportunity to become acquainted with farmers in the neighborhood.

In 1943, Mr. Groman was reemployed by National Farm School as manager of all school farms and this is his position at present.

He resides near the campus, in a house that was built over 200 years ago.

Mr. Groman in a leisure moment at home.

The different farms under Mr. Groman's supervision include units #1 and #2 near the campus and railroad; #3 near Mr. Feisser's house which is being worked on the contour at present; units #4 and #5 on the other side of lower state road; unit #6 near the dairy; and unit #7, last summer's poultry range. Last season 526 acres were cropped by the General Agricultural Department under Mr. Groman. They included 140 acres of corn, 140 acres of wheat, 7 acres of potatoes for college kitchen use, 12 acres of soybeans for seed, 22 acres of oats, and 205 acres of hay. (Including 35 acres of alfalfa which were cut three times during the season.)

There are 65 acres of pasture near the dairy, and most of this was top dressed heavily with manure last year. Mr. Groman estimates his average yield of corn at 75 bushels per acre, but on the De Kalb test for a single acre, the yield was 106.26 bushels. For the past four years, however, the farm has averaged up to 116 bushels on the De Kalb test.

In the past, Mr. Groman has conducted various experiments here in conjunction with the Pennsylvania State College of Agriculture and the United States Department of Agriculture. Two of these were with fertilizer practice and time of seeding wheat in relation to infestation of Hessian fly (done with the state college and government respectively). Due to these experiments of wheat, arbitrary dates were recommended for wheat planting in this area.

Mr. Groman's plans for the college farm include installation of tile drains in certain wet spots to facilitate cultivation, and the laying out of contours on farm #7 as a soil conservation practice. His general policy wherever possible, will be to follow a three year rotation of corn, wheat, and hay.

Holiday Festival Spreads Good Cheer

BY ROGER GABLE '50

On the night of December 16th, the true Christmas spirit of good cheer burst forth into reality when the second "Holiday Festival" was presented in Lasker Hall. The festivities were sponsored by the National Agricultural College Glee Club, now under the able leadership of Mrs. Richman and Mrs. Shelly, both of Doylestown.

The gala evening appropriately began with a Christmas dinner, following the maxim that the true basis of total satisfaction is a full stomach. The program, slightly longer and much more varied than it had been the previous year, was highly praised by the entire student body. The Glee Club sang five selections, and the audience joined in on "Jingle Bells," "Come all Ye Faithful," "Silent Night," "Joy to the World," "The First Noel," and "Little Town of Bethlehem."

The Glee Club, breaking away from the traditional Christmas carols, sang selections of enduring popularity. These included "Sing Me a Chanty," "Jesu, Joy of Man's Desiring," a Fred Waring arrangement of "Coming Thru the Rye," "Dry Bones," and their theme song, "Ladies Day." The band played "Mr. Joe" and "Indian Boy."

Mr. Herman Feisser surprised and delighted us all by doing a fine job on a vocal. Dr. and Mrs. Reinthaler played a string duet thoroughly enjoyed by everyone. Ben Sykes added the western touch by playing a guitar and singing a few songs. Stan Schneider gave an able performance on the marimba.

Chuck Newman played a few piano selections which certainly added much to the program. Then everyone in the audience caught the Christmas spirit of good cheer and heartily joined in the singing of carols as they went off to the gym to see the Aggies open their 1948-49 basketball season against the Eastern Baptist Theological Seminary.

Book Review:

ROAD TO SURVIVAL — William Vogt

BY DANNY BUGESLOV '51

ROAD TO SURVIVAL deals with a topic that is of utmost importance to humanity: it is an attempt to reveal the relationship of man and his environment. On a world-wide scale, it is an analysis of how human beings, in multiplying numbers, extract from a small planet their basic needs of food, shelter and clothing.

But despite the gravity of its subject, the book is far from a cut and dried scientific volume. It possesses the qualities of clarity and force. It is interesting and fascinating, easy to read and hard to lay down. Anyone who reads it can easily understand why it became a Book-of-the-Month-Club selection.

The author, William Vogt, is a recognized authority on conservation and land usage. A prominent scientist, he is Chief of the Conservation Section of the Pan-American Union. Many of the examples presented in the book are based on first hand experience.

The Disappearing Land

ROAD TO SURVIVAL presents basic realities, the underlying forces that shape our lives. The author shows how farmers in six continents, rape their soil and mine it. Slopes of hills are cultivated and thus exposed to surface erosion. The fine top soils of vast areas are loosened, to be carried away as dust in the wind. Natural vegetation that once covered much of the earth's continental surface is being destroyed, and the precious, irreplaceable soil is leached of its mineral salts—the essential plant nutrients. Millions of acres of forests are cut down and exploited for timber. As a result, wild life, including beneficial species are displaced and annihilated and the depth of the all-important water table is altered. Everywhere man interrupts and disturbs the environment, instead of conforming to its laws. The outcome is disastrous.

Industrialization and the development of machines, the most important factors in our modern era, are called illusions. The prosperity and increased standard of living that followed are temporary. Industrialization is possible only at the expense of recklessly exploited natural resources and the purchasing power of a weakening rural population. It is shown that the highest living standard is enjoyed by countries like Canada, New Zealand, Australia and Argentina, in which industrialization has made but little progress. On the other hand, such industrialized and over populated countries as Sweden, Germany, Japan, Italy and England are having great economic difficulties. The source of real wealth is the soil suited for agricultural cultivation, and it is limited.

Social Developments

Hand in hand with the industrial revolution came the sanitary revolution. Simple techniques of sanitation, such as the boiling of water became widespread. Diseases that plagued humans for centuries were being overcome by medical devices.

Population increased even more rapidly; the death rate and infant mortality fell; life expectancy rose considerably. It all meant more hungry mouths.

But the amount of land remained constant. Its productive capacity, (or "biotic potential," as the author terms it) remained, at best, the same. In most cases, as a matter of fact, it was lowered.

In the hundred years prior to 1940, the world population more than doubled —from 1,000,000,000 to 2,200,000,000. Vogt estimates the minimum amount of arable land necessary to promote a decent living is 2½ acres per person. But the earth has only 2,600,000,000 arable acres, a little over one acre per person. There are almost no virgin soils, and the old ones are losing fertility as their irreplaceable topsoil is washed down the rivers.

The author offers no clear answer to the problems he presents. The reader will find no blueprint or complete program. But the book does suggest some practicable steps toward the solution of our human dilemma.

Survival Through Education

It calls for a reorganization of thinking. Men must learn to know, to feel, their dependence upon the earth. They must stop blaming economic systems for their failure to adjust themselves to the world in which they live.

A world wide educational program must be launched, to make every man, woman, and child realize what is at stake. More and better scientific experts are urgently needed to carry on an adequate conservation program.

In order to promote ecological health, the book suggests:

(1) That renewable resources, such as forests, be used on a sustained yield basis, and

(2) That nations adjust their demand for food to the necessarily limited supply.

This can be done by lowering the standard of living, or by maintaining less people.

The Malthusian Theory

Checking the rise in population by means of birth control may seem, to some groups, objectionable, but in the opinion of Vogt it is far better than letting millions live in poverty and despair, and die of starvation as they do in India and China today.

These ideas are not original with William Vogt. Together with another book, OUR PLUNDERED PLANET by Fairfield Osborne, ROAD TO SURVIVAL is typical of a school of thought known as the Malthusian theory or Malthusianism. A British clergyman named Thomas Robert Malthus was the founder and the original exponent of this theory. Malthus, who died in 1834, predicted that the world's population would soon outgrow its food supply. Then, war and famine, caused by overpopulation would result.

It is erroneous to believe however, that the Malthusian theory is accepted by all scientists. It is a subject of much debate and controversy.

Opponents of the theory maintain that within the last century, humanity made real progress toward better living, and that the world never ran out of food. True, there are local famines, as there always had been, but they result from faulty distribution and waste, not from lack of food. They claim that Malthusianism grossly exaggerates the problem and underestimates both nature's resources and man's resourcefulness. Some scientists consider the entire concept of

(Continued on page 18)

RAMBLINGS IN POULTRY

By Saul Goldstein '50

NATIONAL AGRICULTURAL COLLEGE POULTRY TEAM PLACES SIXTH AT RUTGERS UNIVERSITY

THE National Agricultural College invaded Rutgers University, New Brunswick, New Jersey, during Thanksgiving, and its three-man poultry judging team placed sixth in N.A.C.'s first participation in inter-collegiate poultry judging competition.

Professor Raino Lanson, of the college poultry department coached Joe Fulcoly, Saul Goldstein, John Reed, and alternate Erwin Goldstein to take part in this event. It was the first time in the history of the college that we had sent a team to participate in inter-collegiate activities pertaining to agriculture.

For this 24th Eastern Inter-Collegiate Poultry Judging Contest, the first held since the war, ten agricultural colleges entered from the northeast section of the country.

The program began on Friday, November 26, with the registration of the teams, a meeting of coaches, and a talk on New Castle Disease by Professor F. R. Beaudette, of Rutgers University. On the following day, Saturday, each team competed in a written examination and the remainder of the day was spent in judging ten classes of birds. That same night the final results were made known and the awards were presented at a banquet held at Howard Johnson's Restaurant by John A. Pino, General Contest Committee Chairman of Rutgers University.

The awards of Gold cups were then presented to Cornell, New Hampshire, and Connecticut, who placed first, second, and third in that order. The placing of the remainder of the teams was as follows: fourth, Massachusetts; fifth, Matyland; sixth, NATIONAL AGRICULTURAL COLLEGE; seventh, West Virginia; eighth, Rutgers; ninth, Delaware; tenth, Rhode Island.

In individual honors, the Aggie's top man, John Reed, placed eleventh out of the thirty men who had participated.

The cordial hospitality extended by Rutgers University concluded on Sunday afternoon with a tour of the Rutgers Agricultural Campus.

The National Agricultural College poultry team gained a great deal of experience and knowledge through this event and when judging time comes around again next year their goal will be first place honors. The contest will again be held at Rutgers University.

N.A.C. Poultry Judging Team (left to right) — John Reed, Alternate Erwin Goldstein, Saul Goldstein, Professor Raino Lanson, and Joe Fulcoly.

△

Dr. Raymond T. Parkhurst Guest Speaker

A universally recognized authority in the field of poultry nutrition, Dr. Raymond T. Parkhurst, of the Flory Milling Company, Bangor, Pennsylvania, spoke to a large gathering of guests and members of the Poultry Science Club in Segal Hall recently.

Dr. Parkhurst was formerly the head of the Poultry Department at the University of Idaho and the University of Massachusetts. Among the leading men of his profession, Dr. Parkhurst is known as "Dr. Solubles" because of his outstanding work on distillers dry solubles for poultry nutrition.

According to Dr. Parkhurst, there are four essential factors that must be followed in order to secure proper returns from a poultry investment. They are as follows:

1. There must be inherited ability in the bird.

2. You must have a healthy individual to start with.

3. You must be able to maintain sanitary conditions, and keep disease under control.

4. There must be good management, for the best of feed may be of no value if not administered properly.

New Developments

The remainder and by far the most interesting part of Dr. Parkhurst's talk was a new development in the field of poultry nutrition.

Dr. Parkhurst emphasized that the greatest new development in this field is the work being done on high energy-low fibre feeds. This high energy-low fibre ration has been developed due to the discovery of vitamins and the uses of synthetic niacin, coline chloride, synthetic riboflavin and the BG complex concentrates.

(Continued on page 15)

NEW TYPE EGG WASHING MACHINE INSTALLED

By Saul Goldstein '50

In an effort to increase efficiency in our poultry plant, Mr. Raino K. Lanson, of the poultry department, has recently purchased a mechanical egg washer. In the past all eggs have been cleaned by hand at a great loss of time and labor. It is hoped that this machine will save many hours of work and time.

Important Parts

The washer consists of three important parts: the water pan, the egg compartment, which is capable of cleaning 36 eggs of varying size at one time, and the screen rack for drying the eggs after washing.

A regular 110 volt A.C. line of the type that is used for practically every kind of electrical appliance operates the washer. When the machine is ready for use, the water pan should be filled two-thirds full, preferably with warm water. The starter switch when turned on will start the motor and it will also start the heater operating. Because of the heating element, it is important to keep the water pan filled at all times when the machine is in operation.

Washing Procedure

The proper washing procedure is to have the water warmer than the eggs. It is not possible to get the water in the pan too hot. However, when the water in the pan is actually boiling, eggs should not be left on the machine for more than four minutes, considerably longer than the required cleaning time. When the water is below 170° F. eggs can be left on the machine indefinitely for, from all indications, no serious harm has been done to fresh eggs left on the machine for periods of from one to three hours.

Eggs can be placed on the washer satisfactorily either while it is or is not in motion. The individual spaces into which the eggs fit vary in size from one side to the other in order to accommodate eggs of varying widths. The greatest efficiency can usually be obtained by placing the eggs at random on the machine and rearranging those that are not in the proper size spaces.

Checks and cracks can be cleaned without further breakage provided the cracked portion does not expose an open space large enough to catch on the scraper-bar-assembly. When a cracked egg with a dented area is placed on the machine it will often expand the contents of the egg enough to push the dent out and give the egg a normal appearance. Therefore, to prevent the packing of checks with normal eggs it is well to wash them on one specific section of the machine all the time.

Small or fair checks that are caused in the neck during collection and handling may not be noticed when they are placed on the machine. However, when they are warmed slightly, the contents will expand enough to make the checks visible. This cracking or checking is not caused by the machine but is just a case of the machine showing up a crack or check that may otherwise be missed.

It is possible to remove all the eggs from the machine at one time without handling them. This is done with a thin sheet or plate of plywood or masonite that is slightly narrower than the scraper-bar-assembly and somewhat long. In order to do this the machine is stopped and the egg-removing plate is placed under the eggs between the belt and scraper-bar-assembly. The egg-removing plate, eggs and scraper-bar-assembly are taken off the machine. The plate, eggs and scrapers are placed on the drying rack and then the egg-removing plate is taken off, allowing the eggs to drop on the drying rack screen. The greatest efficiency is obtained by removing the eggs when the majority of them have been cleaned. The eggs that fail to clean can be replaced on the machine in a later run.

In normal farm operations it is very practical to have the washer operating beside the egg baskets as eggs are taken from basket to egg cases. Soiled eggs can quickly be placed on the washer. When clean, the eggs are transferred to the drying screen and when dry they can be put into the egg case. In this way eggs are cleaned almost without loss of time.

The water should be changed after each washing operation and more often when even large quantities of dirty eggs are being washed. It is also well to clean the heating element occasionally. Soaps are not recommended for use on the machine; however, the use of non-suds-forming detergents is optional.

When an egg slips from the hands of the operator and breaks on the cleaning surface of the machine it will self clean in due time because under normal operating conditions the egg washer is self-cleaning.

In order to obtain the best results and the greatest efficiency from the egg washer it is well to follow these four major rules:

1. Keep the machine properly adjusted.

2. Keep a high water level in the pan.

3. Keep the washer clean.

4. Keep it properly oiled.

The purchase of the egg washing machine is one of the first steps in the improvement of the poultry plant. In future issues, reports will be given on the further modernization of the College poultry plant.

POULTRY PROJECT

Final plans for the Poultry Science Club's duck project have been completed and the day-old Pekin ducklings are expected to arrive during the week of January 10th. With the fine cooperation of the college administration, the Poultry Science Club has secured housing for their ducks in the new brooder house.

The ducks have been ordered from a reliable duck breeder and feed will be purchased by the club through the college, from a Doylestown feed supply company. All the members of the club have agreed to take part in the project and a committee consisting of Stan Brooks, Chairman; Max Berkowitz, Jack Greenberg, and Sheldon Koltoff are making the arrangements necessary for the proper operation of a successful project.

All direct functions of the project will be under the supervision of Professor Raino Lanson, club adviser, and Saul Goldstein, President of the Poultry Science Club.

Explosive Butts

In some parts of the San Joaquin Valley in California, people are warned not to drop cigarette butts because the soil is so rich in nitrogen that it might catch fire.—*Saturday Evening Post.*

PRINCIPLES OF FARM ACCOUNTING

By Danny Bugeslov '51

To run their farms efficiently, farmers must keep an orderly and systematic set of records. These records aid the farmer in determining the profitability of the various operations and branches of his farmstead. Farmers are particularly interested in the bookkeeping that is necessary in order to compute the amount of their income taxes.

Personal Costs vs. Operating Costs

The most basic principle of farm accounting is the separation of the farmer's personal costs from the farm operating costs. The personal costs have no direct bearing on the affairs of the business, and are therefore not deductible from taxable income. The farm operating costs, on the other hand, indicate business operations, and are deductible.

For income tax purposes, as a rule, only the expenses on items that are used on the farm are deductible. Thus, maintenance of agricultural machinery and implements, payment for hired machines and labor, costs of fertilizers, and even bills for publications pertaining to farming are not considered taxable.

Other costs that are less directly related to the actual running of the farmstead are also deductible. These include state and local taxes, insurance of any kind, bad debts, and losses resulting from fires and storms which affect actual property.

Cash Basis vs. Accrual Basis

Two basic systems of bookkeeping are used by farmers, the cash basis and the accrual basis. The one that is generally preferred and recommended is the accrual basis system. The fundamental formula for this method is inventory of livestock, crops, and produce at end of each year, plus sales during the year, plus miscellaneous receipts during the year, minus a total of beginning inventory and cost of livestock and products purchased. The result equals the gross profit. To compute the net profit, expenses and depreciation are deducted.

Fixed Asset Schedule

Year by year, the farmer must analyze the various activities of the farm, so as to determine their degree of profitability. A fixed asset schedule that indicates the cost price and date of acquisition of each fixed asset is indispensable for the conduct of proper depreciation figures. This schedule should be differentiated from the inventory schedule, which records all produce and supplies, regardless of whether they were bought or produced.

The classification of livestock under these headings is slightly confusing. A good rule to follow is that work stock, such as dairy cows, are considered as capital and are listed as fixed assets, whereas young animals and feeders are regarded as inventory of produce.

Daily Records

Daily records should be kept of dairy and poultry production and performance.

For dairy operations these accounts should include the production of each individual cow and of the herd as a whole, indicating butterfat and calf production, purchased items such as feed and bedding, and produce items (fed milk, etc.).

The poultry records can be kept most easily on tally sheets that are placed in each pen. They include egg production score, count of layers, and quantity of feed used. For the farmer's own purposes, feed should be charged for, whether bought or grown, and labor should be allocated to the various farm operations. Although the farmer's own labor and the labor of his immediate family are not taken into consideration in income tax returns, they should be accounted for in the farmer's own books.

At the end of the year, all livestock records are summarized. For dairy, the total number of cows is computed from the summary and divided by 12 to find the average cows in production during the year. The total butter fat produced during the year is divided by the number of cows to arrive at the average butter fat production per cow. When the farmer summarizes poultry records, the final figures he needs are the total annual egg production per hen, and the total yearly income per hen.

Non-Operating Income

By non-operating farm income is meant miscellaneous receipts such as government subsidies, labor or machinery hired out and unclassifiable income. These should be described carefully so as to provide for accuracy in the preparation of income tax returns.

The fixed asset schedule, mentioned above, indicates the machines and buildings of the farm, including their cost and estimated life. From it, depreciation is estimated. The general formula for annual depreciation is *cost-scrap value ÷ estimated life.* Depreciation must be taken at a rate constant from year to year. It cannot be postponed or accelerated. The total of all depreciation is a proper tax deduction.

Printed schedules and forms prepared by various institutions and colleges prove helpful to farmers. Their usefulness depends largely upon the particular section for which they were prepared. Schedules that are suited for use in the corn belt, for instance, are not very adequate for the northeastern states.

A good farmer, however, will undoubtedly find that keeping regular and accurate records is well worth the little extra work which it entails.

A Dirt Farmer

A dirt farmer is a man who starts out with nothing, loses on everything he grows and comes out even at the end of the year.

Nobody knows how he does it. He doesn't know himself.

DAIRY FARMING

By Herbert Rosenoff '50

Students majoring in Dairy-Animal Husbandry in agricultural colleges should be familiar with the problems confronting the dairy farmer.

Before a man goes into dairying, there are many things that he must take into consideration.

Labor Requirement

First and foremost is the labor requirement of the average dairy farm. If you are looking for a 40-hour week, you had better look elsewhere. The dairy farmer puts in at least 10 hours a day and in emergencies often works 14 hours or more.

The cows must be milked at least twice daily, they must be fed, cleaned and bedded, and generally taken care of every day. In addition there are field operations taking place. The dairy farmer never takes the vacation that other farmers do.

Cost of Buying Farm

Secondly, the price of a farm is prohibitive. Every piece of tillable land has a price tag reading at least four figures, and many farms cost more than $10,000.

Cattle today are more expensive than they have ever been. Any kind of purebred registered heifer or brood dam of decent stock costs over $500 unless the farmer buys calves, which still run in the hundreds. Grade cows are considerably less, but even their prices are exorbitant.

The dairy requires as much machinery as any other agricultural enterprise, and often more. With machinery up at least 50%, and in some cases 100%, above prewar levels, common sense and ingenuity are necessary. Thrifty farmers can save money by purchasing horse-drawn equipment that can be cut down for the tractor, such as planters, rowers and rakes. These implements may need an extra brace here and there to stand the extra strain put on by the added speed and power of the tractor, but the reduction in expense means a great deal, especially when the investment is already high in the tens of thousands.

Perhaps you can rent land supplied with cattle, machinery and other necessary equipment, or manage someone else's farm for a percentage of the profits. These methods reduce your cost. Of course, it's not your farm, but you acquire valuable experience which may be put to use when you start your own dairy enterprise.

When you borrow money today each dollar you borrow has a value of perhaps 50 cents. When you start to repay in a few years, that dollar will undoubtedly have a value closer to the $ sign, perhaps 75 cents or even more. All this must be taken into consideration.

Problems Ahead

Although farmers are receiving more for their products today than ever before, their expenses are also the highest ever. Feed runs close to $100 a ton; seed, fertilizers, and labor are up at least 80%. All these things add up.

Dairying is a risky business in which you gamble daily. The farmer is eternally at the mercy of the elements—rain, hail, snow, wind, and, of course, sunshine. Mother Nature has the most far reaching effect on the production end of the dairy industry. Contented cows grazing peacefully while hay is being made presents a beautiful picture. Yet, a sudden rain throws the herd way down the production scale, and prevents field operation.

The farmer can settle down after a hard day's work and look back at a job well done, and at the same time look forward to a new job. He can see the "fruits of his labor" before his eyes—

(continued on page 14)

WOODLANDS ON THE FARM

By Don Selak '50

Woodlands are an essential unit of the farm because they serve to protect the soil from erosion, conserve moisture, produce timber, provide food and cover for wildlife, and protect the cultivated lands around them. Through their wood products, they will furnish a permanent cash income from the land.

Good land use necessitates that excessive slopes on the farm be planted to trees, and that areas now low in production be placed under proper management programs. Land that is too steep for tillage or badly eroded should be retired and planted to trees.

Farm woods are valuable, for their products include lumber for the repair of farm buildings, fence posts, cordwood, pulpwood, and fuel. A properly managed woodland often returns yearly, exclusive of labor, as much as two to eight dollars per acre. Woodlands, however, have little value when grazed, left open to fire hazard, and stripped indiscriminately. The above dangers encourage erosion, which eventually leads to the destruction of land.

In harvesting woodland products, care must be taken to prevent clean cuttings so trees should be removed only in such a manner that natural replacement will provide for a future stand. Likewise, trees should be harvested only when they are marketable as timber. If these general practices are followed, the woodland on your farm will not only return a yearly income, but this income will increase as conservation practices improve.

Forest grazing results in severe damage to trees, and yields poor returns in pounds of meat. Livestock browsing upon seedling trees and plants destroy leaf litter, thereby increasing runoff of water and erosion, and lowering the productivity of the woodland and the potential food and cover for wildlife. To reverse this process, good fencing is necessary. With animals restricted to pastures, the woodlot increases in herbaceous growth, and so does the population of quail, ruffed grouse, rabbits, and even song birds.

Black locust and walnut, along with other food plants, are commonly used to hold back spreading gullies. Such practices control erosion, conserve moisture, and in time provide a supply of fence posts.

Other conservation practices which conserve fertility and increase wildlife are sod water-ways, rotation of pastures, building of terraces on slopes and strip farming on the contour with rolling land.

DEVELOPMENTS IN HORTICULTURE

N. J. Horticultural Society Holds Convention in Atlantic City

Recommendations of Fruit and Vegetable Committees

By Dave Miller '50

SHOULD fruit and vegetable farmers be given parities? This question aroused much discussion and comment at the New Jersey Horticultural Society's annual convention held at Atlantic City December 6-8. A fruit committee and a vegetable committee recommended the following proposals:

Vegetable Committee

1. The committee strongly recommends an amendment to the present farm legislation which would make it possible to adjust their production to anticipate demand.

2. They also advocate a mandatory support price on the formula for basic commodities established by the Agricultural Act of 1948 to growers who cooperate in such a program.

3. The committee favors the principle of compensatory payments to the producer where necessary as a means of keeping retail prices at a level that will encourage high consumption.

4. Acreage released from production through the operation of such a program must be planted to soil-conserving crops, unless an increase of some other crop in short supply is requested by the Secretary of Agriculture.

Fruit Committee

1. To be economically sound, the fruit industry in America needs a program of support by the Federal Government.

2. The committee recommends the suggested amendment which will make possible a Federal program for fruit growers upon their request.

3. Acreage released from fruit production must be planted to soil-conserving crops, unless an increase of some other crop in short supply is requested by the Secretary of Agriculture.

4. A balanced production program should involve the Federal Government only to the extent of administrative costs and purchases of surplus crops due to unusually favorable weather. When production is in line with market needs, Government price support must be at the 90 per cent of parity level.

5. Fruit should be made a staple commodity in all school lunch programs, and authorities should give preference to locally grown fruit in making up their menus.

The members present were asked to vote yes or no on each of these proposals. Ballots were to be placed in a ballot box and later tabulated. In the afternoon session following the morning at which the proposals were presented, the chairman expressed his surprise at the small number of votes. It was apparent that most of the members present had not made up their minds on how they would vote on the presented proposals.

Two opposing points of view were evident at the discussion. Those in favor of the proposals argued that farmers had no security against low market prices and crop failures. If they failed to get a satisfactory price for what they produced they would find difficulty in buying supplies they needed.

Those against the proposals argued that it would bring the government into the life of the farmer and perhaps be but the first step in leading to still more government controls. This would eventually lead to the farmer's being regimented by the government. If the farmer would use better methods of farming and find better markets it would not be necessary to support the farmers with parity.

Corn, cotton, wheat, and tobacco are supported by parity. Fruit and vegetables are not. One member of the audience said he would like to see the law passed, but used only if absolutely necessary. He believed that it would give the farmer some measure of security. He asserted that living under a free enterprise system, he would do everything in his power to make that system work, but if it should not work, there must be some alternative.

Proposed Agricultural Amendment

As we see it, one of the points discussed at the New Jersey Horticulture Convention was that in order to control the market on fruits and vegetables so that the supply will never exceed the demand, the amount of acreage devoted to a specific crop must be predetermined before the season. If necessary, already established orchards might have to be removed so as not to exceed the quota. It is not inconceivable to imagine that if such a law was passed, other enterprises (such as dairy and poultry) might be affected.

STUDENT, FACULTY, ALUMNI, AND OTHER READERS, WHAT IS YOUR REACTION TO SUCH A LAW?

We would like to hear from you. We will try to publish all worthy letters received before February 15. Address all your mail to the:

Gleaner

National Agricultural

College

Farm School, Pa.

Some of the points to keep in mind are: How will this law affect me when I decide to go into farming?

What will this law do to limit free enterprise?

What effect will such a law have on the economic structure of our country?

Will agriculture become a closed field, almost impossible to get into?

What will this law do to further fair prices for agricultural commodities?

This is your chance to voice your opinion, so let's hear from you.

SUMMARY OF IMPORTANT LECTURES
at N. J. Horticulture Convention on Dec. 6

By David Blumenfield '50

Dr. Firman E. Bear, Chairman, Soils Department, New Jersey Agricultural Experiment Station, led the symposium on the topic "Some Important Soil Problems in Vegetable Production." Dr. Bear pointed out that the days of the horses are gone and with their passing, horse manure has vanished to a great extent on American farms; yet, with all our modern developments, no satisfactory substitute for horse manure has been found.

Mr. John W. Carncross, Associate Agricultural Economist, New Jersey Agricultural Experiment Station, speaking on "Economic Problems in Soil Improvement of New Jersey Vegetable Farms" stated that in a survey of an unselected group of New Jersey farms that yields of fresh vegetable crops are declining. Because of organic matter depletion, the soil subsequently has less moisture-holding capacity and more erosion.

The three-year rotation plan with one year of sod that has been advocated to counteract such a trend has not been widely accepted because of economic reasons; although the yield is lower during the transition period, there is an increase in yields after a few years above those obtained without the land rest period. In the following discussion in which Dr. Bear asked different farmers questions, the opinion as to whether yields were increasing or decreasing was divided, although most of the farmers thought that yields in general were decreasing.

Dr. Oren R. Neal, Associate Research Specialist, Soils Department, New Jersey Agricultural Experiment Station, in his talk entitled, "Crop Rotation for Conservation and Fertility Maintenance" stated that although the biological soil life is influenced by both chemical and physical factors, the chemical factors have often blotted out the equally important physical factors. This oversight has resulted in poor physical condition, as evidenced by crust formation, plow sole formation, excessive runoff and erosion, and soil compaction.

To prove the importance and practicability of getting better physical condition by the use of a one-year rest period (two winters and a summer) in a three year rotatiion plan, Dr. Neal cited an experiment where more corn was produced in this manner with two crops, than with three, using ordinary procedures.

Dr. Jackson B. Hester, Campbell Soup Company, New Jersey, in "Fertilizer Requirements of Vegetables" gave the following three points as necessary for correct fertilizer application: (1) the plant food requirements of the plant must be known; (2) the soil analysis of of the soil must be known; and (3) the fertilizer must be applied in the right amount, at the right time, and in the right way.

Instead of a one-year rest period, Dr. Hester favored the use of rye as a cover crop following tomatoes and using the fertilizer excess remaining from the tomatoes for the rye. The deficiency of minor elements for tomatoes runs in this way in New Jersey—boron, first; magnesium, second; and manganese, third. Both boron and magnesium are now being added to most tomato fertilizers.

Dr. Ernest R. Purvis, Associate Research Specialist in Soils, New Jersey Agricultural Experiment Station, spoke on "Minor Element Problems in Growing Large Yields." With vegetables in general in New Jersey, magnesium deficiency outstrips boron; manganese is third and under some conditions first. Copper becomes a problem only on peat soils. Other minor elements which have as yet produced no problem are iron, zinc, and molybdenum. Molybdenum has just recently been found to be deficient in some California soils.

Ralph B. Starkey, Grower, Mullica Hill, talked concerning the practical aspect of farming on the topic, "How Far Can We Go in Putting These Practices into Operation?" Mr. Starkey stated it is now hard to get profits on vegetables and in some cases the average selling prices were so low they did not even cover the cost of marketing.

To alleviate this situation, Mr. Starkey suggested the use of labor-saving devices, careful packing, an increase in yield per acre, better erosion protection, and soil maintenance through the reduction of cultivated crops, inclusion of sods, inclusion of green manures, and livestock, plus the other recommendations mentioned by previous speakers.

Association of American Universities Ends Its Practice of Accrediting Colleges

By Dave Miller '51

In a move that was given very little publicity, the Association of American Universities abandoned its policy of accrediting colleges and universities.

The A.A.U. has decided that it no longer will set itself up as an educational "Supreme Court" and pass judgment on the nation's many institutions of higher learning. Of the 1000 or more colleges and professional schools in the country, only 301 are on the association's approved list. Virtually every college has sought accreditation from the association. Standards have been kept high and the task of evaluating deserving members has proved difficult.

Dr. Harvey M. Wreston, President of Brown University, recently declared, "the time is ripe to reform, if not abolish altogether, the present system of listing institutions on the basis of good and bad."

Many college officials have resented the growing influence of the A.A.U. agencies springing up on the local, state, regional, and national levels. Some of these agencies dictate to the colleges the amount of space that a chemistry laboratory shall have, or the number of volumes that must be kept in a college library. Educators claim that when the A.A.U. began its system of approving colleges there was a definite need for that type of activity. Today, that need no longer exists.

In the opinion of Dr. Wreston, "Colleges and universities should have a great deal of freedom without being dominated by graduate schools. This is not possible when the standards are nonbound and the institutions are forced to follow a hard and fast line dictated from above."

Dr. Wreston believed the present list of the A.A.U. will gradually disappear.

(Continued on page 18)

◆ ◆ ◆ SPORTS ◆ ◆ ◆

BASKETBALL PREVIEW

By Bill Clancey '51

Football season was hardly over when Coach Bernie Emil issued the first calls to practice for the 1948-49 cage season. The response was very heartening, and after a few days of cutting, the squad had been narrowed down from thirty to thirteen members.

Of the thirteen on this year's team, nine are returning lettermen and the remaining four are newcomers. The most promising new face is that of Earl Lawson, a six-foot forward from Flemington, New Jersey, whose deadly one-handed shots should cause our opponents much anguish. The coach is also expecting big things from the other yearlings—Carl Lynn, Jeff Steinman and Shelley Rosemarin.

Those veterans who will be bearing the brunt of this year's rugged schedule will be the familiar faces of seven juniors and two sophomores. Upon the shooting ability of Lou Serridge and Dick Reeves; the floormanship of Bill Orapchuck, Benny Beck and Norm Rosen; and the steadiness of Junie Long, Chick Ginsburg and Bill Larder will largely depend the outcome of the 1948-49 basketball season for the Aggies.

This season's schedule includes games with but three junior colleges, while the remainder are with senior colleges. At this writing it appears that Wilkes College, Glassboro State Teachers and Potomac State Teachers will be the toughest opponents. The basketeers are built close to the floor, but what they lack in size they make up for in fight, speed and general aggressiveness.

So, win or lose, fellows, let's get behind the varsity and give them a little encouragement throughout the season by attending ALL their home games.

1948-49 N.A.C. varsity basketball team (left to right) kneeling — "Junie" Long, Norm Rosen (co-captain), Dick Reeves (co-captain) and Lou Serridge. Standing — Coach Bernard Emil, Jeff Steinman, Bill Orapchuck, Carl Lynn, Bill Larder, Harvey Finkel, Hank Kuehn, Earl Lawson, Ben Beck, Chick Ginsburg, Sheldon Rosemarin, Manager Paul Stein.

△

POCKET SIZE POISON

By Ernie Cohen '50

If N.A.C. lost a ball game, you might have heard, "Well anyway, we made a good showing, besides, what can you expect from such a small school?" Just what can you expect from a small school?

About fifty years ago, Sewanee College lined up quite a football schedule for themselves, five games in six days against what still are considered the strongest teams in the South. They began on a Thursday and beat a strong Texas College team, 12-0. The next day they opened up against Texas A. & M. and trounced them, 32-0. The day after, they played another game, this time against Tulane, and triumphed, 23-0.

Sunday was a day of rest for Sewanee, but on Monday they were ready to go again and this time whipped Louisiana State, 34-0. For the finale they played Mississippi, and kept the record clean by winning, 12-0.

Five games in six days, with the composite score: Sewanee, 113; opponents, 0. All this was accomplished by a twelve-man squad from a school with an enrollment below one hundred!

There it is! That's what can be done. Bring on Michigan, Notre Dame, and Army. If a school half our size with a team 1/3 our size can make such a showing on successive days, then we should be ready for anyone. Bring them on!

△

Dairy Farming

(Continued from page 11)

cattle in prime condition glistening in the sunlight, fields waving in the breeze, corn stalks bowed in the wind, and cans upon cans of milk waiting to be shipped to the creamery.

The products of milk are innumerable: from butter and billiard balls to lactose (for plastics), whey, creams and cheeses, different types of milk, spreads, concentrates, and hundreds of other products—all from milk produced by the cows on dairy farms all over the country.

Jack-of-all-Trades

The dairyman is a professional in his own field, yet he is also a lumberman, carpenter, mechanic, electrician, plumber, construction engineer, soil conservationist, and above all an economist. His work requires a knowledge of physics, chemistry, geometry, trigonometry, accounting, biology, physiology, feeding, pathology, and structural engineering. He must be well read to keep up with new developments in agriculture and must be able to adjust himself to new conditions daily.

There are many things to be considered before starting out in dairy. The main qualification is appreciation of soil and animal life. If you love your work the physical labor can be easy, because it is no longer work. If you have these qualifications, you are well on your way to success.

BEEF CATTLE AT N. A. C.

On December 8, six Hereford steers were delivered to the college from Lancaster, Pa. They were unloaded at Farm 3, under the supervision of Mr. Bentley. The animals will be taken care of by the Animal Husbandry Juniors, and will be under their supervision.

These six animals are to be the forerunners of a purebred Hereford herd They will be used primarily for fattening purposes and will eventually be slaughtered for use in the kitchen. The average weight range of the steers is 400 to 675 pounds. These animals are range grown, and are of the average run of stocker cattle.

The acquisition of these animals is a step in the direction of expansion of the Animal Husbandry Department, and of the agricultural program in general. We are looking forward to seeing these animals lead to a championship herd to represent the college at competition in the Eastern cattle shows.

△

Dr. Parkhurst, Guest Speaker

(Continued from page 8)

The development of this feed has taken place in the last year or so, and these high energy mashes have been on sale for only a short time.

Some other new developments in poultry nutrition have been the work on Vitamin B_{12}, the cobalt coordinate complex, and the recent work on the "animal protein factors," many of which have been developed synthetically and which seem to be essential for good growth and high hatchability.

Dr. Parkhurst pointed out that the B_{12} factor is carried through the egg into the new chick and that it is needed by four-week-old chicks. Many experiments on high energy feeds are also being conducted at the Beltsville experiment station. With all the recent developments along this line, high energy feeds will undoubtedly be a part of poultry nutrition news quite frequently in the future.

After Dr. Parkhurst concluded his talk, there was a question period concerning various phases of poultry nutrition.

△

CHESS NEWS

In the final series that climaxed the chess tournament, Danny Bugelsov emerged as victor and campus champion. Al Hass was a close runner-up with Herb Reback, third.

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— Alumni News —

The GLEANER is still very far away from reaching its 1000 mark in circulation. Judging from the contents of some of the fine letters we have received, we are almost positive that our present alumni who are subscribing are enjoying their copies. We hope that every one of you alumni who are reading this publication will make it a point to get your fellow alumni to subscribe. Why don't you bring your copies of the GLEANER to your chapter meetings and show the other members what only $1.50 can bring them?

Chapter Presidents!

If you think that showing your members copies of the GLEANER will get them to subscribe, write to us and we will send you extra copies that we will have available for this purpose.

Remember, we *must* get that 1000 circulation *very* soon. We need your help, N-O-W!

* * *

BALTIMORE CHAPTER again met, for the third time since its formation; not a single member in Baltimore or its vicinity was absent. Those who have been in attendance were: Sam Rocklin, Harry Bachman, Jacob Mannes, Henry Eskin, Joe Masters, Bernie Savage, Irving Horn, Marty Pitt, Herb Harris, Harold Coben, Morris Skaist, Hesse Glick, Ed Angel, Sol Schwartz, Herman Binder and M. K. Steinberg.

* * *

CHARLES RUDOLPH '30 has been ill for quite some time, but we recently learned that he is well on his way to recovery.

* * *

FROM THE SUNDAY BULLETIN (PHILADELPHIA) October 10, 1948:

With presidents of three educationional institutions as members, the board of advisors of the Young Republican Club of Philadelphia is perhaps the most learned of its kind in the country. So far, Harold E. Stassen, of the University of Pennsylvania; Major Milton G. Baker, of Valley Forge Military Academy; and James Work, of National Agricultural College, have agreed to serve.

* * *

SOLIS GALOB '26 claims that his one-year-old has the distinction of attending every football game at N.A.C. this year.

NEW ENGLAND CHAPTER — The Chapter held a picnic on the farm grounds of Leon Goldfarb, Taunton, Massachusetts.

* * *

SOL SCHWARTZ '41 is the proud papa of a daughter born November 2nd. She has been named Linda Ruth.

* * *

The former Philly Chapter Presidents were present at a dinner held at the Bagel, 249 S. Quince Street, on Sunday, December 12th. The gathering was a great success.

* * *

ALUMNI—how about coming out to see our basketball team play this season? They have a terrific schedule and each opposing team is no push-over. If you live anywhere near Lycoming College, Wesley Junior College, Valley Forge M. A., College of South Jersey, Glassboro S. T. College, Scranton-Keystone J. C., Potomac S. T. College, or Wilkes College how about turning out when we play at these schools, since that's the time the team can use your support. Complete basketball schedules can be obtained by either writing to the GLEANER or Mr. Daniel Miller, at N.A.C.

* * *

The next issue of the GLEANER will reach you around the middle of March. We have to skip one month so that we can prepare for final exams.

Please keep your alumni news rolling into the GLEANER editors. This is your column; it can continue only with alumni news. THIS MEANS YOU!

EXPERIMENTS WITH MAPLE TREES

By DON CHRISTIAN '50

Last year there appeared in this space an article on maple tree sap mentioning experiments being conducted with the several varieties of maple trees here on the campus. Under the guidance of Professor Schmieder, several students of the Plant Physiology class endeavored to find out if the other maple trees such as the Ash leaf, Silver, Norway, and Red Maple could be used as well as the sugar maple for the making of syrup. A comparison of the sugar content and amount of sap flow from each variety was to be made, paying special attention to the factors that might influence this flow: time of the season, temperature, barometric pressure, and other weather conditions.

Data for only two species of maple is available, but the results indicate some idea of the phenomena of sap flow in maple trees.

The sugar maple (Acer saccharum), most widely tapped for syrup, began to run January 19th with a rather small flow of about a half gallon every six days. The sugar content was, however, quite high, reaching 5% at one time. By the middle of February, the flow was a gallon in three days, with the sugar content dropping to 3% and 2.5%. By March a gallon of sap would flow in a day and the sugar content remained 2.5%. When the flow stopped on March 19, the amount had dropped to less than a pint a day, yielding a sugar content of 2%. For the season, the particular tree tested gave eleven gallons of sap of 3% average sugar content.

The Ash-leaved Maple (Acer negundo) began to run on February 17 for about a month. The flow was a half gallon a day with a sugar content of 1.5%. Its flow was at the same time as the highest flow in the Sugar Maple. Its low sugar content and slow rate of flow probably account for the tree not being used commercially. Up to March 16 the tree gave nine gallons of sap.

When we compare the records of the two trees we note these facts. If the trees are tapped early in the season a higher sugar content is received, although there is a smaller flow of sap than a month or two later. The barometric pressure apparently has little effect upon the flow, whereas a rising temperature accompanied by fair, sunny weather does a great deal to stimulate the flow of sap. At temperatures below 12° F. there was practically no flow. January through March are the months that the sap flows. This is the time of greatest activity in the maple forests of the Northern states, where the maple sugar industry is centered.

FOOD CHEMISTRY "305"

By Jack Pernatin '50

If you happen to be walking past the Food Industry laboratory some night and notice two juniors working arduously over a strange little machine, just keep on walking; please don't bother them. That strange little machine is a colony counter and what those fellows are doing is burning the midnight oil in order to work out their problems in Food Industry (Food Chemistry 305).

These problems consist of taking samples of milk from every milk can at the dairy. This milk is brought back to the Food Industry Laboratory and checked for bacteria in general and coliform bacteria in particular.

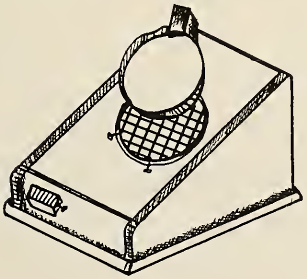
The samples are taken every evening by the students in the course who work in teams of two each. Those students participating in this project are: Dick Clark, Hank Haftel, Marv Klein, Junie Long, Chuck Raskin, Norm Rosen, Bill Shearer, and Jack Pernatin.

Fundamentally, the procedures for working out the examination of bacteria and coliform bacteria are similar.

As we already know, bacteria are one-celled plants, the smallest organisms which can be seen under the common compound microscope. Coli are gas forming bacteria, which, when present in milk, are direct evidence of unsanitary dairy products. A colony is simply a group of bacteria.

The Bacteriological Operation

All materials used in these bacteriological operations are sterilized either in the autoclave or the electric oven. When the materials are brought to the laboratory they are placed in covered glass plates known as petri-dishes. We pour a warm solution of standard tryptone-glucose-extract-milk agar into the plates which we wish to examine for the types of bacteria present in the milk. This yellow agar acts as a media upon which the bacteria will grow.



In the plates on which we are testing for coliform bacteria, we pour a solution of desoxycholate agar (which has a deep red color)—over the red agar we pour a coating of yellow agar. The plates are then inverted and placed in an incubator, a large box-like structure in which a uniform temperature of 37° C. is maintained. This temperature is most suitable for bacterial growth.

After twenty-four hours, the coliform plates are removed and placed on the colony counter. This counter consists of a transparent glass plate, beneath which is an electric light, and upon which the petri-dish rests. It is divided into square centimeter areas which are again divided into square millimeters. These subdivisions make it easier for the eye to distinguish the divisions on the plate and make it possible to do more accurate counting.

Above the petri-dish rests a magnifying glass which makes it still easier to distinguish the colonies. When we look through the magnifying glass at the coliform plate we notice small red dots, redder than the surrounding medium. These are colonies of coliform bacteria. The fewer the colonies, the purer the milk. These colonies are counted and then computed.

After forty-eight hours, the other bacterial plates are removed from the incubator and placed on the colony counter. On these plates the colony appears somewhat whiter than the surrounding yellow medium. These are also counted and computed.

In this standard plate count, considering quality as it prevails in the market milk industry, raw milk which counts up to 50,000 bacteria per cc is excellent; up to 200,000 per cc is good; up to 500,000 per cc is fair; over 500,000 per cc is quite poor.

I'm happy to say that our tests show that the milk from the College Dairy is of a high grade.

———△———

Goldy: Can you tell me why they put cornmeal on the dance floor?

Rosen: No, why?

Goldy: To make the chickens feel at home.

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APARTMENT FOR GALLAGHER

By Bill Gallagher '51

Until August, 1948, my life had been tolerably peaceful, but during that fateful month I was accepted as a student by the National Agricultural College. It was then that my troubles began.

Prior to that time, I had been attending another college and my wife and I had been living with her parents. Since I was going to transfer in September, we decided that the clever thing to do would be to move to Doylestown.

We made visits to the fair city of Doylestown and the people there had us believing that apartments or living quarters of any kind were difficult to get. But on one of our visits we stumbled upon an apartment. Time was growing short and because apartments were hard to get (or so we believed) we grabbed it as the drowning man did the straw. That it wasn't the most wonderful place in the world didn't bother us at all: it was a place to live. We accepted it and all that went with it at $65.00 a month.

The apartment consisted of the whole first floor of a very old house. It also included five rooms, a bath and a back shed. I presume that the residence had been left to my landlord by his late departed mother, for it had at one time housed her and a large number of her relatives.

The landlord, a seemingly pleasant chap, also had a sister. She was employed a few miles from Doylestown and because she desired to return to her old homestead on weekends, my wife and I agreed to let her use one of the rooms in our apartment. Because we were renting on an unfurnished basis and since we were allowing the landlord's sister to have a room on weekends, he allowed us to use any of the old furniture and dishes that were in the house. We were also allowed to let our guests use his sister's room when she was not there.

In addition, the landlord's sister desired a telephone, so the "old boy" was kind enough to let us use the phone free of charge if I would cut the grass and shovel the snow in the various seasons that were to come. My wife and I owned a dog of which we were both very fond, so we had made arrangements to take care of the sister's two cats for the privilege of having our dog. I was allowed to park my car in the churchyard next door to the house. (A relative of the landlord was a church official.)

On the above terms we moved in, a few days before school started. It was then that some startling revelations were made to me. First of all, the painted walls couldn't be seen, because ten years of accumulated dirt covered them. When we started to scrub the walls down, we were politely asked not to scrub one wall in the kitchen because it was the old family totem pole.

Upon investigation of that hallowed wall, we found that it was covered with pencil lines and on each line was inscribed a person's name and a date. It seems that it was not a totem pole but a family yard stick. On it they had even marked the height of Bozo, the family dog, as he stood on his hind legs.

To top it all off, the place we called home was as private as Grand Central Station during rush hour. There was a difference of ten degrees heat between upstairs and downstairs, and because the ladies upstairs were early risers, every morning we had a visitor (we had to leave a key in the hall) who came in to turn up the thermostat in our living room. Then there was the sister and her guests who also used to traipse through our living room periodically. And last, not to be outdone, was the landlord who used to stop by on unannounced visits to bring the kitties "a little something extra."

Ah, it was a fine homestead for all of that! It was life off the campus for $65.00 a month.

Ed. note: It is with keen pleasure that we announce a happy ending to this sad tale. The author of the article is now well established in another residence.

AMERICAN UNIVERSITIES

(Continued from page 13)

It will be used a few more years, just as a "Who's Who" is used for reference even though it is a few years old, but eventually it will disintegrate.

A national committee has been set up to analyze and examine the entire program. Headed by Dr. R. G. Gustavson, Chancellor of the University of Nebraska, the committee has been studying the problem for several years. Although it is too early to know what it will recommend, Chancellor Gustavson's committee is half convinced that it should ask all the A.A.U. agencies to discontinue their work for the next five years.

Dr. Weston expressed the belief that, "Years ago, when the colleges were expanding and when many poor practices such as 'Diploma Mills' were in vogue, it was necessary to have a rigid control over the institutions of higher learning. The early need for close inspection and supervision has passed."

"It's the enthusiasm, the drive, the sincerity and the reality of purpose that makes a university great," Dr. Wreston asserted. "These are the things that you cannot measure."

Colleges and universities throughout the land may, in some way or another, be affected by the new A.A.U. policy. If Dr. Wreston and other leading educators are correct in their analysis, the abandonment of the accrediting system will mean that institutions of higher learning will have greater flexibility. The educators are convinced that this can be achieved without in any way sacrificing any of the existing high standards or professional practices.

Book Review

(Continued from page 7)

"biotic potential" a fallacy. Land is not static. Soils, once under cultivation, are subject to the will of modern man. These scientists knock down the phrase "irreplaceable topsoil" and maintain that the well-kept farms of Pennsylvania and New York State are far more fertile than they were when the pioneers first felled the forest. To support their views, they point to the rising output per acre and the increasing efficiency of farm workers.

But whether one agrees with Vogt or not, there is little doubt about the significance of his book. It provokes thought on a subject that is crucial to mankind, and thereby makes the average reader aware of the issue. For after all, only in the alertness of men everywhere, and in the collective effort to achieve a better world, lies our road to survival.

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